

## Wisconsin Pest Survey Report

### Newly Emerging Corn Diseases

Two newly emerging corn diseases have been reported in the Midwest, **tar spot of corn** (*Phyllachora maydis*) and **Xanthomonas blight** (*Xanthomonas vasicola* pv. *vasculorum*). The DATCP pest survey team conducted fall surveys and inspections of 125 fields in 30 counties from July 21 to September 29, 2017, and visited 105 fields in 2016.

Tar spot was detected in Green County on September 12, 2016 by DATCP's pest survey team and found in Iowa Co on September 20 by UW-Madison. The USDA Mycologist confirmed the first detection of tar spot disease in Wisconsin. It is considered of minor importance at this point. The disease, which only affects corn, was reported in Indiana and Illinois in 2015. It is better known in Mexico, Central and South America. In Mexico significant crop losses were observed when tar spot infections were colonized by another fungus, *Monographella maydis*. This second fungus has not been observed in Wisconsin. Tar spot is spread on plant debris that is carried by wind and rain.

In 2017 a few incidences of tar spot were again encountered in several Midwestern states.

**Xanthomonas blight** has not yet been observed in Wisconsin. This bacterial disease was officially confirmed in nine states on Aug. 26, 2016: Colorado, Illinois, Iowa, Kansas, Minnesota, Nebraska, Oklahoma, South Dakota and Texas. It was first reported in the Republic of South Africa in 1949.

The Wisconsin survey collected "Xanthomonas-blight-like" leaf samples for testing at Plant Industry Lab. Suspects were sent to the USDA identifier in Kansas for further testing but all samples were determined to be negative. Symptoms are similar to gray leaf spot but since this is a bacterial disease, fungicide applications are ineffective. USDA has determined that Xanthomonas blight is of negligible disease importance and has no quarantine significance for domestic or international trade.

**Southern rust** (*Puccinia polysora*) is also occasionally detected during fall surveys. It does not overwinter in Wisconsin but can be blown up from the southern US and tropics. Late season arrivals after corn is in milk stage (R3) pose less of a threat to production.



Corn leaf with black spots caused by tar spot disease.